

The USDA Forest Service's Southern Center for Wildland-Urban Interface Research and Information and partners are involved in research projects addressing a variety of wildland-urban interface (WUI) issues. WUI fire research is conducted in partnership with the University of Florida's School of Forest Resources and Conservation and the National Institute of Standards and Technology (NIST). Urban effects research is conducted in partnership with Auburn University's Center for Forest Sustainability and Florida A&M University.

#### **WUI FIRE RESEARCH**

# Flammability of Natural Vegetation and Home Landscapes

This study is comprised of three research projects that were designed to address the issues of wildfire hazard in the wildland-urban interface and investigate different facets of natural vegetation and home landscape flammability. They provide information to help guide firewise planning and to improve fire behavior modeling for urban settings.

- The first project addressed the flammability of native understory species in pine flatwood and hardwood hammock ecosystems.
- The second project quantified and ranked the flammability of ornamental shrubs in the southern United States.
- The third research project is looking at fire spread and structural ignitions from horticultural plantings in the wildland-urban interface. This study includes measures of the rate of spread and heat release for fires moving through four common southern mulches under natural conditions.

## Fuel Reduction Options for Landowners at the Wildland-Urban Interface

This study included two parts: 1) a review of fuel reduction options available to small landowners and 2) a comparison of the effectiveness, longevity and costs of three fuel reduction treatments in the South.

### Post-fire Assessment of Interface Landscapes

The main goals of this study were to: 1) develop a better understanding of how building materials and the arrangement and composition of landscape plants influence structural vulnerability during wildfires and 2) to understand more about fire spread in WUI communities.

## Wildfire Risk Assessment Guide for Homeowners in the Southern United States

This assessment and accompanying guidelines were designed to provide information about fire risk focused on individual properties throughout the South, as a complement to guidelines available for whole communities.



#### URBAN EFFECTS RESEARCH

## **Analysis of Urbanization Effects** on Forest Vegetation

This research project will help to develop an integrated approach to monitoring changes from urbanization to ecological and social systems in the Florida Panhandle. From this work we will develop best management practices that promote the positive attributes of urbanization while minimizing its negative effects. The protocols developed with this research can be used in other regions to assess urban effects. Research is conducted in partnership with Auburn University's Center for Forest Sustainability.

## **Cultural Dimensions of Landscape** Change in the Florida Panhandle

This research project examines the cultural dimension of landscape change in Franklin and Gulf Counties, Florida and examines cultural identity in terms of how people see themselves as individuals and collectives in the places where they live and how landscape change may influence these self-perceptions. Research is conducted in partnership with Florida A&M University.

### Gainesville Urban Forest Effects Project

The primary objective of this project is to monitor how the urban forest changes over time in a small urban city in the South. The project uses the protocol developed for the Urban Forest Effects model (UFORE) to determine species composition, diameter distribution, tree health, species diversity, and native and non-native species distribution.

More detailed information about each of these research projects and their deliverables can be found on the InterfaceSouth website at:

> www.interfacesouth.org/products/ research.html

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